REMARKS

I. Status of the application

This Amendment is responsive to the final office action mailed December 17, 2002. Claims 1-71 were initially pending in the present application, with claims 13-35, 48-55 and 66-69 having been withdrawn from further consideration. In the office action, the Examiner rejected claims 1-11, 36-47, 56-65, and 70-71 under 35 U.S.C. §102(e) and claim 12 under 35 U.S.C. §103(a). (Applicants believe that the Examiner's reference to claim 72 was an oversight.)

The representatives of Applicants thank the Examiner for granting a personal interview and conducting cordial discussions on various issues on April 23, 2003. In accordance with the discussions, claims 1, 36, 56, and 70 have been amended. No new matter is believed to have been added by the amendments.

II. Rejection Under 35 U.S.C. § 102(e): Claims 1-11, 36-47, 56-65, and 70-71 are not anticipated by Tan *et al.* at U.S.P.N. 6,263,255B1 ("the Tan patent")

As discussed in the interview, the Tan patent fails to describe the feature of "manufacturing, controlling, monitoring and tracking lifecycle activity framework components for a plurality of fabrication tools" recited in amended claim 1. This feature, in combination with other recited features, allows the present invention to automatically control a factory that includes a number of wafer fabrication tools. Hence, amended claim 1 is patentably distinguishable from the Tan patent. Also, other independent claims (claims 36, 56, and 70, which recite a similar feature, among others features, as the above recited feature) are also patenably distinguishable from the Tan patent along with the dependent claims.

III. Claim 12 is not obvious over the Tan patent in view of by Mashruwala *et al* (U.S.P.N. 5,295,242B1; "the Mashruwala patent")

The Examiner conceded that the recited feature of claim 12 is not described in the Tan patent. The Examiner then took the position that the missing feature is taught or suggested in the Mashruwala patent. However, the Mashruwala patent also fails to describe the above-described feature of the "manufacturing, controlling, monitoring and tracking lifecycle activity framework components for a plurality of fabrication tools", among other features.

Accordingly, the combination of the Tan and Mashruwala patents, alone or in combination, fails to teach or suggest each and every claimed feature of claim 12. Hence, claim 12 is not obvious over the Tan patent in view of the Mashruwala patent.

IV. No new issue is introduced by the amendments

One of the topics discussed during the interview was whether the amendments would introduce a new issue. The Examiner mentioned (as generally indicated in the Interview Summary dated April 23, 2003) that there would be no new issue introduced if the disclosure of the present invention relates to a factory having a plurality of fabrication tools. The disclosure is replete with such references. The follow are examples in the original disclosure:

> 1. The novel lifecycle additionally, facilitates the integration of tools, equipment or software from different tool, equipment or software suppliers to provide a coordinated manufacturing or

fabricating facility wherein several tools are integrated. (Page 10, lines 29-32; emphasis added.)

2. ...factories including fabricating facilities and various combinations of wafer fab tools ... (Page 11, lines 19-20.)

As shown above, the disclosure of the present invention, which the Examiner considered in examining the pending claims, is clearly directed to features relating to a factory having a plurality of fabrication tools. Hence, Applicants believe no new issue is raised by the amendments.

Applicants believe all pending claims are now in condition for allowance, though the Examiner is requested and encouraged to contact the undersigned if there are any questions or modifications contemplated that would further assist in moving the application toward allowance.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for this Amendment, or credit any overpayment to deposit account no. 08-0219. In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to deposit account no. 08-0219.

Respectfully submitted,
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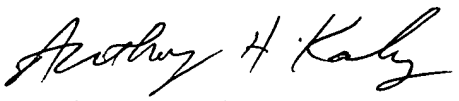

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APPENDIX

1. (Amended) A method for defining a computer implemented factory automation lifecycle, the method comprising:

   a) [Defining] installing and administrating lifecycle activity framework components;

   b) [defining] factory modeling lifecycle activity framework components; and

   c) [defining] manufacturing, controlling, monitoring and tracking lifecycle activity framework components for a plurality of fabrication tools.

2. (Amended) The method of claim 1, wherein said [defining] administrating lifecycle activity framework components comprises defining one or more framework components selected from the group consisting of a security component, a graphical user interface (GUI) console component, a performance and license management component and a saga management component.

3. (Amended) The method of claim 1, wherein said [defining] factory modeling lifecycle activity framework components comprises defining one or more framework components selected from the group consisting of a context resolution component, a configuration management component and a calendar component.

4. (Amended) The method of claim 1, wherein said [defining] manufacturing controlling, monitoring and tracking lifecycle activity framework components comprises defining one or more framework components selected from the group consisting of a visual workflow component, a resource coordination component, an event monitor component and a bill of resources component.

5. (Originally filed) The method of claim 1 additionally comprising a method for defining one or more analyzing of manufacturing results lifecycle activity framework components.

6. (Originally filed) The method of claim 5, wherein defining one or more analyzing of manufacturing results lifecycle activity framework components comprises defining a data manager component.

7. (Originally filed) The method of claim 5 additionally defining a method for defining interactions between the one or more manufacturing results lifecycle activity framework components and components selected from the group consisting of factory modeling lifecycle activity framework components.

8. (Previously Amended) The method of claim 1 additionally defining a software (SW) developing and integrating lifecycle activity.

9. (Originally filed) The method of claim 1 additionally defining a manufacturing planning lifecycle activity.

10. (Originally filed) The method of claim 1 wherein defining a factory automation lifecycle comprises defining a factory automation lifecycle for processing an integrated circuit structure.

11. (Amended) The method of claim 1, wherein defining a factory automation [life-cycle] lifecycle additionally comprises defining framework components such that the framework components are adapted for communicating with a tool integration component, wherein the framework components are selected from the group consisting of installing and administrating lifecycle activity framework components, factory modeling lifecycle activity framework components, and manufacturing controlling, monitoring and tracking lifecycle activity framework components.

12. (Originally filed) The method of claim 11 wherein said [defining] manufacturing, controlling, monitoring and tracking lifecycle activity components comprises defining a visual workflow component.

Claims 13-35: Previously withdrawn from consideration

36. (Amended) An apparatus for processing a product, the apparatus comprising:

a) product processing equipment;

b) at least one central processing unit for electronic data processing;

c) a link for operably linking the central processing unit to the product processing equipment;

d) a memory for storing digitally coded data structures, wherein the memory is operably linked to the at least one central processing unit; and

e) a digitally coded first data structure stored in the memory wherein the data structure comprises a factory automation lifecycle including:

(1) administrating lifecycle activity framework components,

(2) factory modeling lifecycle activity framework components, and

(3) manufacturing, controlling and tracking lifecycle activity framework components for a plurality of wafer fabrication tools.

37. (Previously Amended) The apparatus of claim 36, wherein the administrating lifecycle activity framework components comprise one or more framework components selected from the group consisting of a security component, a graphical user interface (GUI) console component, a performance and license management component and a saga management component.

38. (Originally filed) The apparatus of claim 36, wherein the factory modeling lifecycle activity framework components comprise one or more framework components selected from the group consisting of a context resolution component, a configuration management component and a calendar component.

39. (Originally filed) The apparatus of claim 36, wherein the manufacturing controlling and tracking lifecycle activity framework components comprise one or more framework components selected from the group consisting of a visual workflow component, a resource coordination component, an event monitor component and a bill of resources component.

40. (Originally filed) The apparatus of claim 36 additionally comprising one or more analyzing of manufacturing results lifecycle activity framework components.

41. (Originally filed) The apparatus of claim 40, wherein the one or more analyzing of manufacturing results lifecycle activity framework components comprise a data manager component.

42. (Originally filed) The apparatus of claim 36 additionally comprising a digitally coded second data structure including application components, wherein the first data structure is adapted for managing the second data structure.

43. (Originally filed) The apparatus of claim 42 additionally comprising a digitally coded third data structure including software building blocks for forming one or more of the framework components.

44. (Previously Amended) The apparatus of claim 36, wherein the first data structure comprises:

a) a digitally coded fourth data structure including a graphical user interface (GUI) console component; and

b) a digitally coded fifth data structure including a configuration management component.

45. (Originally filed) The apparatus of claim 44, wherein the fourth and fifth data structures are adapted for interacting.

46. (Originally filed) The apparatus of claim 36 wherein the link comprises a tool integration component including: (1) a tool integration component adapter and (2) a tool interface program

47. (Originally filed) The apparatus of claim 36 comprising an apparatus for processing an integrated circuit structure.

Claims 48-55: Previously withdrawn from consideration

56. (Amended) A data storage device comprising a digitally coded first data structure including a factory automation lifecycle having:

a) administrating lifecycle activity framework components;

b) factory modeling lifecycle activity framework components; and

c) manufacturing controlling and tracking lifecycle activity framework components for a plurality of wafer fabrication tools.

57. (Previously Amended) The device of claim 56, wherein the administrating lifecycle activity framework components comprise one or more framework components selected from the group consisting of a security component, a graphical user interface (GUI) console component, a performance and license management component and a saga management component.

58. (Originally filed) The device of claim 56, wherein the factory modeling lifecycle activity framework components comprise one or more framework components selected from the group consisting of a context resolution component, a configuration management component and a calendar component.

59. (Originally filed) The device of claim 56, wherein the manufacturing controlling and tracking lifecycle activity framework components comprise one or more framework components selected from the group consisting of a visual workflow component, a resource coordination component, an event monitor component and a bill of resources component.

60. (Originally filed) The device of claim 56 additionally comprising one or more analyzing of manufacturing results lifecycle activity framework components.

61. (Originally filed) The device of claim 60, wherein the one or more analyzing of manufacturing results lifecycle activity framework components comprise a data manager component.

62. (Previously Amended) The device of claim 56 comprising a plurality of framework components which are adapted for interacting with a graphical user interface (GUI) console framework component.

63. (Originally filed) The device of claim 56 additionally comprising a digitally coded second data structure including application components, wherein the first data structure is adapted for managing the second data structure.

64. (Originally filed) The device of claim 63 additionally comprising a digitally coded third data structure including software building blocks for forming one or more of the framework components.

65. (Originally filed) The device of claim 64 wherein the first, second and third data structures are adapted for processing an integrated circuit structure.

Claims 66-69: Previously withdrawn from consideration.

70. (Amended) A method for defining a computer implemented automation lifecycle of a factory, the method comprising the steps of:

a) [automatically] defining software components relating to a lifecycle activity framework for automating the factory comprising a plurality of wafer fabrication tools; and

b) installing and controlling the defined software components.

71. (Previously added) The method of claim 70, wherein the software components include a manufacturing execution system.